

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **TRA-BOND F123 Hardener**

Date Printed: 2/10/00

TRA-CON, INC.  
45 Wiggins Avenue  
Bedford, MA 01730  
781-275-6363  
1-800-872-2661

Revision Date: 1/12/99

Revision: B

Emergency Telephone: 1-800-424-9300 (24 hours, CHEMTREC)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	%	OSHA ACGIH	TWA ppm	mg/m <sup>3</sup>	STEL ppm	mg/m <sup>3</sup>	Ceiling ppm	mg/m <sup>3</sup>
Substituted imidazole	000931-36-2	50 - 70							
Glyoxalin	000288-32-4	10 - 30							
Tetraethylenepentamine	000112-57-2	1 - 10							

## 3. HAZARDS IDENTIFICATION

Effects of Overexposure: Repeated contact or breathing of vapors may cause irritation; material is also a strong sensitizer. Eye and skin contact may cause transient irritation.

## 4. FIRST AID MEASURES

Eyes: Flush with water, get medical attention.  
Skin: Wash with soap and water; remove contaminated clothing.  
Inhalation: Remove to fresh air.  
Ingestion: No known antidote but give milk or water; do NOT induce vomiting if swallowed; get medical attention.

## 5. FIREFIGHTING MEASURES

Flashpoint: > 305°F  
Flashpoint Method: COC  
Extinguishing Media: Dry chemicals, chemical foam, carbon dioxide, water.  
Special Firefighting Measures: Avoid breathing smoke. Addition of water may reduce flame intensity.  
Fire and Explosion Hazards: Toxic gases may be liberated; handle as combustible; store in a cool place.  
Flammable Limits: N/A  
LEL: N/A  
UEL: N/A

## 6. ACCIDENTAL RELEASE MEASURES

Spill and Leak Procedures: Prevent skin and eye contact. Soak up in absorbent material, or scrape up, and transfer to disposal container. Wipe up remaining residue with solvents, observing solvent flammability cautions, or use detergents.

## 7. HANDLING AND STORAGE

Special Sensitivity                      Store in cool place in closed containers.

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#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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Local Exhaust	Recommended
Mechanical Exhaust	Recommended
Eye Protection Requirements	Safety glasses or goggles
Glove Requirements	Rubber or plastic disposable.
Other Protection	As required to prevent all body contact; eye bath and/or safety shower.
Respirator Requirements	Air supplied or organic canister, mask in confined areas.

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#### 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance and Odor	Clear, light yellow, low viscosity liquid, ammoniacal odor.
Boiling Point (°F)	> 400
Solubility in Water	high
Specific Gravity (H <sub>2</sub> O=1)	1.0
Evaporation Rate (BuAc=1)	low
Vapor Pressure (mm Hg.)	< 1
Vapor Density (air = 1)	> 5
Percent Volatile	low

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#### 10. STABILITY AND REACTIVITY

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Stability	Stable
Conditions to Avoid (Stability)	Avoid contact with metals corroded by liquid amines; avoid high temperatures.
Incompatibility (Materials to Avoid)	Strong acids and bases, strong oxidizing agents.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, aldehydes, phenol.
Hazardous Polymerization	Will Not Occur
Conditions to Avoid (Reactivity)	Chlorinated compounds ; exotherms when used to cure epoxy resin.

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#### 11. TOXICOLOGICAL INFORMATION

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Primary Entry Route(s)	Skin, eyes, inhalation.
Oral, LD <sub>50</sub>	Ingestion LD <sub>50</sub> (rats) > 1200 mg/kg. MAY CAUSE BURNS.

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#### 12. ECOLOGICAL INFORMATION

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Not available

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#### 13. DISPOSAL CONSIDERATIONS

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Waste Disposal Methods	Dispose of as hazardous waste according to local, state and federal regulations. Disposal method can be land burial or chemical incineration as regulated by all governmental agencies.
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#### 14. TRANSPORTATION INFORMATION

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Not Applicable

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#### 15. REGULATORY INFORMATION

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TSCA: All components are on the TSCA inventory.

STATE LAWS:

The information given and the recommendations made herein apply to our product(s) alone and are not combined with other product(s). Such are based on our research and on data from other reliable sources and are believed to be accurate. no guaranty of accuracy is made. it is the purchaser's responsibility before using any product to verify this data under their own operating conditions and to determine whether the product is suitable for their purposes.

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#### 16. OTHER INFORMATION

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MSDS Date: 1/12/99

Revision: B

HMS Coding: H: 3 F: 1 R: 0

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **TRA-BOND F123 Resin**

Date Printed: 2/10/00

TRA-CON, INC.  
 45 Wiggins Avenue  
 Bedford, MA 01730  
 781-275-6363  
 1-800-872-2661

Revision Date: 1/12/99

Revision: B

Emergency Telephone: 1-800-424-9300 (24 hours, CHEMTREC)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	%	OSHA ACGIH	TWA ppm	mg/m3	STEL ppm	mg/m3	Ceiling ppm	mg/m3
Oxirane,2,2'-(methylenebis(phenyleneoxymethylene))bis-	039817-09-9	55 - 75							
Bisphenol F/Epichlorohydrin Epoxy Resin	028064-14-4	10 - 30							

## 3. HAZARDS IDENTIFICATION

Effects of Overexposure: Repeated contact or breathing of vapors may cause irritation; material is also a strong sensitizer. Eye and skin contact may cause transient irritation.

## 4. FIRST AID MEASURES

Eyes: Flush with water, get medical attention.  
 Skin: Wash with soap and water; remove contaminated clothing.  
 Inhalation: Remove to fresh air.  
 Ingestion: No known antidote but give milk or water; induce vomiting if large amount swallowed.

## 5. FIREFIGHTING MEASURES

Flashpoint: > 305°F  
 Flashpoint Method: TOC  
 Extinguishing Media: Dry chemicals, chemical foam, carbon dioxide, water.  
 Special Firefighting Measures: Avoid breathing smoke.  
 Fire and Explosion Hazards: Toxic gases may be liberated; handle as combustible; store in a cool place.  
 Flammable Limits: N/A  
 LEL: N/A  
 UEL: N/A

## 6. ACCIDENTAL RELEASE MEASURES

Spill and Leak Procedures: Prevent skin and eye contact. Soak up in absorbent material or scrape up and transfer to disposal container. Wipe up remaining residue with solvents, observing solvent flammability cautions or use detergents.

## 7. HANDLING AND STORAGE

Special Sensitivity: Store in cool place in closed containers.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Local Exhaust	Recommended
Mechanical Exhaust	Recommended
Eye Protection Requirements	Safety glasses or goggles
Glove Requirements	Rubber or plastic disposable.
Other Protection	As required to prevent all body contact; eye bath and/or safety shower.
Respirator Requirements	Air supplied or organic canister, mask in confined areas.

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#### 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance and Odor	Hazy, light straw-colored liquid, mild odor.
Boiling Point (°F)	> 200
Solubility in Water	low
Specific Gravity (H <sub>2</sub> O=1)	1.2
Evaporation Rate (BuAc=1)	low
Vapor Pressure (mm Hg.)	< 1
Vapor Density (air = 1)	> 1
Percent Volatile	< 0.5

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#### 10. STABILITY AND REACTIVITY

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Stability	Stable
Conditions to Avoid (Stability)	Avoid uncontrolled excess heating over long periods; avoid uncontrolled amine reaction
Incompatibility (Materials to Avoid)	Strong acids and bases, strong oxidizing agents.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, aldehydes, phenol.
Hazardous Polymerization	Will Not Occur
Conditions to Avoid (Reactivity)	High temperatures, strong acids; certain organics, metallic acids.

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#### 11. TOXICOLOGICAL INFORMATION

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Primary Entry Route(s)	Skin, eyes, inhalation.
Oral, LD50	LD50 (rats) > 3 grams/kg.

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#### 12. ECOLOGICAL INFORMATION

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Not available

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#### 13. DISPOSAL CONSIDERATIONS

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Waste Disposal Methods	Dispose of as hazardous waste according to local, state and federal regulations. Disposal method can be land burial or chemical incineration as regulated by all governmental agencies.
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#### 14. TRANSPORTATION INFORMATION

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Not Applicable

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